

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)

Amendment of Section 73.622(b),
Table of Allotments,
Digital Television Broadcast Stations
(Charleston, South Carolina)

)
)
) MM Docket No. 01-
) RM-
)
)

RECEIVED**MAR 13 2001**

**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

To: Chief, Video Services Division

PETITION FOR RULEMAKING

WCIV, LLC ("WCIV"), licensee of television station WCIV(TV)

NTSC Channel 4, Charleston, South Carolina, by its undersigned attorneys and pursuant to Sections 1.401 and 73.623 of the Commission's rules, hereby petitions for rulemaking to amend the Digital Television ("DTV") Table of Allotments, 47 C.F.R. § 73.622(b). Specifically, WCIV requests that the Commission substitute Channel 34 for Channel 53 as the DTV channel assigned to WCIV. Under this proposal, the DTV Table of Allotments would be amended as follows:

<u>Community</u>	<u>Present</u>	<u>Proposed</u>
Charleston, South Carolina	35, 40, *49, 52, 53, 59	34, 35, 40, *49, 52, 59

For the reasons set forth below, and as demonstrated by the attached Engineering Statement of Cavell, Mertz & Davis, Inc. ("Engineering Statement"), WCIV submits that the proposed amendment to the DTV Table of Allotments is consistent with the Commission's rules and is in the public interest.

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1. As set forth in the attached Engineering Statement, the proposed DTV channel substitution is fully consistent with the requirements of Section 73.623(c)(1). Specifically, the operation of WCIV-DT on Channel 34 satisfies the Commission's 2%-10% *de minimis* interference test. No analog or DTV station will receive incremental interference exceeding two percent of the population currently served. In addition, the proposed channel change will not result in any new interference to stations already experiencing maximum DTV interference (i.e., interference in excess of ten percent of their current NTSC population), nor will it result in interference that would cause another station to begin experiencing DTV interference to greater than ten percent of the population currently served. Moreover, to the extent such protection is required, there will be no impermissible interference to protected Class A television stations.¹

2. DTV Channel 34 can be allotted to WCIV using the station's authorized NTSC transmitter site in full compliance with the principal community coverage requirements of Section 73.625(a).

3. The proposed channel substitution would benefit the public interest for several reasons. First, implementing WCIV's DTV operation on an "in core channel" would eliminate the need to change DTV channels yet again at the end of the transition period. WCIV would be able to complete the build-out of its DTV facilities earlier and at less cost, resulting in improved service to the public. The proposed change will also eliminate the potential to confuse or frustrate the public by requiring them to find WCIV-DT on a second channel.

¹ WCIV does not concede that it is necessary to protect Class A television stations from additional interference in a petition for a DTV channel change. WCIV submits the DTV channel change requested here – substituting a core DTV channel for a non-core channel – represents an appropriate solution to a technical problem that ensures the long-term replication and maximization of WCIV's NTSC service area. Accordingly, WCIV submits that no Class

4. Second, operation on DTV Channel 34 as opposed to DTV Channel 53 would improve signal coverage for viewers in the Charleston DMA. Presently, WCIV(TV) operates on NTSC Channel 4. As demonstrated in the Engineering Statement, operation of WCIV(TV) utilizing proposed DTV Channel 34 would achieve an eight percent increase in interference-free population over that of the current NTSC facility's licensed Grade B contour. WCIV submits that the public interest would be served by the more efficient use of the broadcast spectrum.

5. Third, WCIV submits that its proposal to vacate an out-of-core DTV channel is itself in the public interest. As evidenced by the current public policy debate over the appropriate steps the Commission should take to clear channels 60-69, the process of clearing incumbents from reallocated spectrum is exceedingly difficult. The instant proposal serves to make the next round of broadcast spectrum reallocation easier for the Commission. Accordingly, WCIV submits that this fact alone warrants a finding that the proposed channel change request is in the public interest.

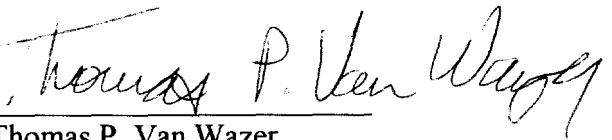
A protection is required under the Community Broadcasters' Protection Act of 1999. See 47 U.S.C. § 336(f)(1)(D) (2000).

CONCLUSION

For the foregoing reasons, WCIV respectfully requests that the Commission initiate the rulemaking requested herein to substitute DTV Channel 34 for DTV Channel 53 as the digital television channel assigned to WCIV, LLC, Charleston, South Carolina.

Respectfully submitted,

WCIV, LLC

By: 

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Dated: March 13, 2001

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Engineering Statement
prepared for
WCIV, LLC
WCIV-DT Charleston, South Carolina
Ch. 34 340 kW 597 m

This engineering statement has been prepared on behalf of *WCIV, LLC* (“*WCIV*”), licensee of WCIV(TV), NTSC Channel 4, Charleston, South Carolina. In the Commission’s Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders on Advanced Television (“*SMO&O*”),¹ DTV Channel 53 was allotted as a “paired” DTV Channel for WCIV(TV). The instant statement supports a *Petition for Rulemaking* on behalf of *WCIV*, to propose a substitute channel for WCIV-DT. DTV Channel 34 is sought as that substitute channel.

Discussion

An engineering review of the DTV allotments and NTSC assignments in the region surrounding Charleston showed that an alternate channel could be used for the Channel 53 DTV allotment. Detailed interference studies were conducted with respect to domestic NTSC and DTV allotments and facilities, in accordance with §73.623(c) (as required in the *SMO&O*). Consideration was also given to Low Power Television (LPTV) stations that are listed as eligible for Class A status. The studies showed that DTV Channel 34 could be used for WCIV-DT at 340 kW effective radiated power (ERP) and an antenna height above average terrain (HAAT) of 597 meters. This facility will provide interference-free service to 773,357 people, which is 8% greater than the 713,444 people served by the current WCIV NTSC facility.

The technical data for the proposed Channel 34 allotment are summarized on the following page. The site specified is the same as that for the WCIV-DT “reference” allotment. The power and height combination is specified as shown (for the proposed “reference” point) as a basis to avoid interference to NTSC and DTV stations and Low Power Television (LPTV) stations eligible for Class A status.

¹ See MM Docket 87-268, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, FCC 98-315, released December 18, 1998.

Summary Technical Data for Proposed DTV Channel 34

Coordinates (NAD-27)	32° 55' 28" N-Lat 79° 41' 58" W-Lon
Channel	34
Effective Radiated Power	340 kW
Antenna Height	601 m AMSL 597 m HAAT

NTSC and DTV Allocation Considerations

Criteria for evaluating the impact of DTV station proposals were released in the Commission's August 10, 1998 Public Notice entitled "*Additional Application Processing Guidelines for Digital Television.*" In that Public Notice, the Commission's Mass Media Bureau stated that "interference to [NTSC stations and DTV stations and allotments] affecting less than 2 percent of the population they serve is considered to be *de minimis*. However, any interference is considered unacceptable (there is no amount considered to be *de minimis*) if the station to be protected already is receiving interference to more than 10 percent of the population it would otherwise serve...." The same Public Notice states that for DTV proposals, the determination of interference to NTSC and DTV facilities (as calculated per OET Bulletin 69) will be rounded to the nearest tenth of a percent. The August 10, 1998 Public Notice regarding the channel change proposed herein requires that interference criteria (as described above and in §73.623(c)) be utilized to evaluate the new channel facility's impact on NTSC and DTV.

Accordingly, a study was conducted to evaluate the change in interference to pertinent NTSC and DTV assignments that may be attributed to the proposed Channel 34 facility. A detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission's Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, July 2, 1997

Engineering Statement

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(“OET-69”).² The interference study examined the net change in interference as experienced by DTV stations that would result from the proposal.

All stations considered in this study are listed in **Table 1**. As shown in **Table 1**, any increase in interference to NTSC and DTV facilities complies with the Commission’s 2%/10% “*de minimis*” guidelines. No interference is predicted to any other NTSC or DTV station or allotment. Thus, this proposal is believed to be in compliance with Commission policy regarding DTV channel changes as they may affect NTSC and DTV stations. Accordingly, based on the results of this study, it is believed that there will be no impact to NTSC and DTV assignments as a result of the instant proposal.

Class A Television

An allocation study of possible conflicts was conducted with respect to LPTV / translator stations that may be eligible for Class A status.³ The study determined that the following LPTV / translator stations are close enough to the proposed DTV Channel 34 allotment facility to warrant detailed review:

²The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard terrain profile step size of 1 km and cell size of 2 km were used. The Longley-Rice computer program input data, following the guidelines established under OET-69, includes a location variability of 50%, a time availability of 10%, a situation variability of 50%, horizontal polarization, 0.005 S/m conductivity, a climate constant of 15, an assumption of a continental temperate climate zone, and a receive antenna height of 10 meters. The service area for each DTV facility under study is that area predicted to receive signal levels of at least 41 dB μ using the Longley-Rice methodology, and within the DTV F(50,90) service contour distance as determined per §73.625(b). In instances where the DTV reference ERP is 50 kW or 1,000 kW, the Grade B contour of the associated analog station (as authorized April 3, 1997) is used to determine the extent of the DTV station’s service area. The F(50,90) DTV service contour level is established by the formula $41 - 20\log[615/(\text{channel mid-frequency})]$ dB μ . The service area for each NTSC facility under study is that area predicted to receive signal levels of at least 64 dB μ using the Longley-Rice methodology, and within the NTSC F(50,50) service contour distance as determined per §73.684. The F(50,50) NTSC service contour level is established by the formula $64 - 20\log[615/(\text{channel mid-frequency})]$ dB μ . Comparisons of various results of this computer program to the Commission’s implementation of OET-69 show good correlation.

³The Commission recently created a new class of television stations. See *Establishment of a Class A Television Service*, MM Docket 00-10, FCC 00-115, released April 4, 2000.

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Channel	Call		City	State	Lat	Distance
Applicant/Licensee					Long	Bearing
=====						
34Z	W66BJ	CP	Zn: MYRTLE BEACH	, SC	33-35-28	95.64
TRINITY BROADCASTING NETWORK			11.80 kW	0M	79- 2-54	39.19
34Z	W66BJ	APP	Zn: MYRTLE BEACH	, SC	33-35-27	95.60
TRINITY BROADCASTING NETWORK			11.80 kW	0M	79- 2-55	39.19
34+	W34BN	LIC	Zn: CHARLOTTE	, NC	35-16-33	279.94
THREE ANGELS B/CING. NETWORK, INC.			32.60 kW	0M	80-48- 5	339.01

From the list above, a study was made to determine which LPTV stations' protected contours are overlapped by the corresponding interfering contour from the proposed WCIV-DT facility, using the criteria of §73.623(c)(5). With respect to interference caused from the various LPTV stations to the proposed WCIV-DT facility, an evaluation was conducted per §73.6013, which would require that an analog Class A station not cause 0.5 percent (or more) interference to a DTV facility's service population. The detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission's Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, July 2, 1997 ("OET-69").⁴

Contour overlap to station W66BJ (that would be prohibited under §73.623) would occur from the proposed WCIV-DT facility. Additionally, the proposed WCIV-DT facility would experience interference from W66BJ (as determined under the OET-69 criteria, per §73.6013). However, W66BJ is not on the Commission's June 2, 2000 list of stations deemed eligible to file an application for Class A station status.⁵ Thus, protection to W66BJ is not required.

⁴The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein, except that the cell size is 1 km (which provides a finer resolution than the Commission's standard 2 km cell size). A standard terrain profile step size of 1 km was used. The service area for the proposed WCIV-DT facility is that area predicted to receive signal levels of at least 41 dBμ using the Longley-Rice methodology, and within the DTV F(50,90) service contour distance as determined per §73.625(b). The F(50,90) DTV service contour level is established by the formula $41 - 20\log[615/(\text{channel mid-frequency})]$ dBμ. Comparisons of various results of this computer program to the Commission's implementation of OET-69 show good correlation.

⁵See June 2, 2000 Public Notice *Certificates of Eligibility for Class A Television Station Status*, DA 00-1224.

Engineering Statement

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Station W34BN has been *displaced* from Channel 34 due to the allotment, in the *SMO&O*, of Channel 34 as a "paired" DTV channel for WSOC-TV, Channel 9, Charlotte, North Carolina. Additionally, W34BN has been issued a construction permit to operate on Channel 6 in lieu of Channel 34. Thus, protection to W34BN is not required.

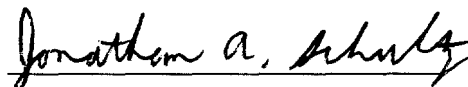
No other LPTV or Class A stations would experience or cause interference with respect to the proposed WCIV-DT facility. Therefore, there will be no impact to Class A Television stations as a result of the instant proposal.

Summary

It is proposed that DTV Channel 34 be allotted to Charleston, South Carolina as a substitute for Channel 53. The substitution will not impact any NTSC or DTV facility. There is no conflict with LPTV stations eligible for Class A status.

Certification

Under the penalty of perjury, the undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief. Mr. Schultz is an associate in the firm of *Cavell, Mertz & Davis, Inc.*, holds a Bachelor of Science degree from the University of Rochester in Physics, and has previously submitted engineering exhibits to the Federal Communications Commission. His qualifications are a matter of record with that entity.



Jonathan A. Schultz

March 8, 2001

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Table 1
INTERFERENCE ANALYSIS RESULTS SUMMARY

prepared for
WCIV, LLC
WCIV-DT Charleston, South Carolina
Ch. 34 340 kW 597 m

DTV Facilities

<u>Stations Considered</u>	<u>City, State Channel</u>	<u>Distance (km)</u>	<u>Baseline Population (1)</u>	<u>Calculated “Before” Service Population (2)</u>	<u>Calculated “After” Service Population (3)</u>	<u>--- Net “New” Interference --- (“2 percent” test)</u>		<u>Percentage Reduction of Baseline Population (“10 percent” test) (6)</u>
						<u>Population</u> (4)	<u>Percentage</u> (5)	
WEBA-DT (CP 50.0 kW)	Allendale, SC 33	161.2			----- no interference caused by proposal -----			
WEBA-DT (Ref 50.0 kW)	Allendale, SC 33	161.2			----- no interference caused by proposal -----			
WPXU-DT (Ref 52.4 kW)	Jacksonville, NC 34	268.9			----- no interference caused by proposal -----			
WPXU-DT (CP 600.0 kW)	Jacksonville, NC 34	268.9			----- no interference caused by proposal -----			
WSOC-DT (Ref 740.5 kW)	Charlotte, NC 34	276.0	2,143,000	2,145,926	2,143,286	2,640	0.12	0.00
WSOC-DT (Lic 370.0 kW)	Charlotte, NC 34	276.0			----- checklist facility, protection not required -----			
WSOC-DT (App 1000.0 kW)	Charlotte, NC 34	276.0	2,143,000	2,206,652	2,203,466	3,186	0.15	0.00
WJWB-DT (Ref 300.6 kW)	Jacksonville, FL 34	342.7			----- no interference caused by proposal -----			
WJWB-DT (App 1000.0 kW)	Jacksonville, FL 34	342.7			----- no interference caused by proposal -----			

Table 1
INTERFERENCE ANALYSIS RESULTS SUMMARY
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<u>Stations Considered</u>	<u>City, State Channel</u>	<u>Distance (km)</u>	<u>Baseline Population (1)</u>	<u>Calculated “Before” Service Population (2)</u>	<u>Calculated “After” Service Population (3)</u>	<u>--- Net “New” Interference --- (“2 percent” test)</u>		<u>Percentage Reduction of Baseline Population (“10 percent” test) (6)</u>
						<u>Population (4)</u>	<u>Percentage (5)</u>	
WMMP-DT (App 92.0 kW)	Charleston, SC 35	1.8	502,000	600,475	600,437	38	0.01	0.00
WMMP-DT (Ref 97.7 kW)	Charleston, SC 35	20.7	502,000	500,784	493,182	7,602	1.51	1.76

NTSC Facilities

<u>Stations Considered</u>	<u>City, State Channel</u>	<u>Distance (km)</u>	<u>Baseline Population</u> (1)	<u>Calculated “Before” Service Population</u> (2)	<u>Calculated “After” Service Population</u> (3)	<u>--- Net “New” Interference --- (“2 percent” test)</u>		<u>---Total Interference--- from DTV only (“10 percent” test)</u>	
				<u>Population</u> (4)	<u>Percentage</u> (5)	<u>Population</u> (7)	<u>Percentage</u> (8)		
WRJA-TV (LIC)	Sumter, SC 27	118.7		----- no interference caused by proposal -----					
WJPM-TV (LIC)	Florence, SC 33	150.3		----- no interference caused by proposal -----					
WGSA(TV) (CP)	Baxley, GA 34	227.0	522,616	519,846	516,253	3,593	0.69	3,620	0.69
WGSA(TV) (LIC)	Baxley, GA 34	270.5	92,922	91,082	90,991	91	0.10	91	0.10

Table 1
INTERFERENCE ANALYSIS RESULTS SUMMARY
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<u>Stations Considered</u>	<u>City, State Channel</u>	<u>Distance (km)</u>	<u>Baseline Population</u> (1)	<u>Calculated “Before” Service Population</u> (2)	<u>Calculated “After” Service Population</u> (3)	<u>--- Net “New” Interference --- (“2 percent” test)</u>		<u>---Total Interference--- from DTV only (“10 percent” test)</u>	
				<u>Population</u> (4)	<u>Percentage</u> (5)	<u>Population</u> (7)	<u>Percentage</u> (8)		
BPET- 19960920WJ	Raleigh, NC 34	323.5	1,947,298	1,726,266	1,726,266	0	0.00	119,063	6.11
WHOT-TV (LIC)	Athens, GA 34	408.7		----- no interference caused by proposal -----					
WRLK-TV (LIC)	Columbia, SC 35	175.4		----- no interference caused by proposal -----					

- Notes:
- (1) For DTV stations, greater of NTSC or DTV Service Population, from FCC Table
For NTSC stations, total population within noise-limited contour
 - (2) Service population after reduction from terrain and interference losses, before consideration of proposal
 - (3) Service population after reduction from terrain and interference losses, considering proposal
 - (4) Net change in population receiving interference resulting from proposal, equals (2) minus (3). A negative number indicates a *reduction* in interference.
 - (5) Proposal's impact in terms of percentage, equals (4)/(1) times 100 percent; not to exceed *de minimis* limit of 2.0 percent
 - (6) Total interference to DTV stations: equals 100 percent minus [(3)/(1) X 100%]; proposal may not add interference above 10% total. Zero total interference is indicated if (3) is greater than (1).
 - (7) NTSC station total population subject to interference from DTV only sources (considering proposal)
 - (8) Proposal's impact to NTSC station in terms of percentage, equals (7)/(1) times 100 percent; proposal may not add interference above 10% total

The determination of stations for consideration and the determination of baseline population and interference percentages were made as described in the Commission's August 10, 1998 Public Notice "Additional Application Processing Guidelines for Digital Television"